# THE GENESEE FARMER.

**Vol. IV.** **ROCHESTER, AUGUST 9, 1834.** **No. 32.**

**Published by Luther Tucker.**

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☞ New subscribers can be supplied with the first, second and third volumes.

**THE GENESEE FARMER.**

SATURDAY, AUGUST 9, 1834.

## On Half-sweet and Half-sour APPLES.

We remember to have been told more than twenty years ago, that apples half sweet and half sour, might be produced by grafting two half buds together, the one from a sweet and the other from a sour variety; but we considered it an idle notion. We were therefore lately much surprised to find the following account of this process, said to be written by an American Statesman, in a British publication on Agriculture:

"Take two scions or grafts, one from a sour and the other from a sweet apple; divide or split with a sharp knife each graft into two parts or halves, taking care to pass the knife through the center or middle of as many buds as are in a line with each other. Then take one half of the sweet graft, and join it to a half of the sour graft in such manner that two or more of the half buds on each, do exactly meet and fit each other. Then carefully wind round them, worsted or woollen thread to keep them together: and having thus become one graft, cut it so as that the bark of the wedge part, which enters the stock or tree engrafted, being partly of both kinds, may receive the sap of the stock on both sides. If this artificial graft take and grow, which frequently happens, the two parts of which it consists, will gradually unite and incorporate and become a tree, whose fruit on the branches shooting from the united buds, and partaking of both natures, will be on one side sweet, and on the other sour."

After reading this statement however, positive and circumstantial as it is, we have lost none of our doubts. The sorts of apples cultivated in some of our principal nurseries, amount to several hundreds. Whatever is most likely to be purchased, may there be found; and yet amongst the whole of them, we hear of no such *new variety*, though as a curiosity we think such a kind would be in great demand. We read indeed of a "four-tasted" apple of which we know nothing further; but we have seen an apple that was called half sweet and half sour. On examination we found it had *five* ribs, in which particular apples differ much, and that these parts were sweeter than the intermediate spaces. In short, it was evident to our understanding that the ribs ripened sooner than the parts that were more depressed. We were satisfied that all the difference of flavor arose from immaturity in that part; that it was a *natural* variety; and that the pretended manufacture of it was all a hoax. There is nothing strange in all this: In summer apples we often find a part of the fruit mellow and very palatable when the other parts less prominent, but more especially those near the blossom end, are rejected as immature; and in winter apples that are smutted and cracked, particularly the Rhode Island Greening, these parts often remain crude and sour until spring.

To be plain, we doubt the practicability of grafting two half buds together. But letting that pass, together with the difficulty of finding two grafts with buds exactly of the same distance apart in both,—we shall proceed to consider the probable consequences on the *supposition* that such a growth is practicable.

If the halves of two different *flower buds* could be made to grow together, the intention of that writer would be (in one instance) accomplished, and we might have *one* apple half sweet and half sour. So far the imagination can trace the consequence with distinctness; but beyond this point we believe it has been bewildered, for it has not been proposed to graft *flower buds*. The half buds which are to coalesce must be *leaf buds*, such as produce branches, and from which the future tree, bearing apples half sweet and half sour all over it,—is to derive its origin. Now a scion six or eight inches long, may have about the same number of lateral buds; and on dividing it lengthwise *straight* through the pith, one *half* of these buds will probably be found on each piece. But supposing that the terminal bud, formed of two different halves, has been *soldered* together by woody matter, each as it grows must preserve its own nature as distinctly as the buds on each half, or as bars of silver and copper that are soldered together. Each will retain its own side of the branch; and all the new buds that protrude from the opposite sides of this branch, must continue separate and distinct. There is nothing in nature so far as we can perceive, to *intermix* them, and to make them produce apples half sweet and half sour.

We may be told indeed that a bud originating exactly in the line between the sweet and the sour varieties, may partake, half and half, of each. We must bear in mind however, that *such a line has no breadth*,—rather a narrow base for a bud; and besides, were the thing possible, the number of such apples would be very small in comparison with the *entire sweet* and the *entire sour* kinds which must we think, inevitably surround them on the same tree; but no mention of this circumstance has ever been made within our knowledge, and therefore we are willing to express our suspicion that no such experiment as that recommended by our eminent countryman, has ever succeeded.

V.

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*For the Genesee Farmer.*

## Garget or Poke.

A correspondent of the "Maine Farmer," whose remarks on Garget are copied into this journal at page 229, erroneously considers this plant as a native of several parts of Europe as well as of Japan. It is only indigenous to America.* In proof, I would refer to *Loudon's* Encyclopædia of Plants, from which we learn it was introduced into England from Virginia as early as the year 1615.

In the same work we are also informed that "The English-American name Poke, is a corruption of Pocan, the name by which it was formerly known in Virginia.

"The vignerons in Portugal for many years, used the juice of the berries of the elder bush *to give a deep color to the Port wines*, but to which it was thought to communicate a disagreeable taste when mixed in too great a quantity. Complaint of this practice having been made to government, orders were given that the stems of that plant should be cut down and destroyed before they produced berries; but they forgot to include the *Phytolacca* [Poke] in the proscription, so that *the berries of this plant supply the same purpose in a much worse manner.*" Z.

* This is also admitted by *Mirbel* in his paper "On the Dissemination of Plants," which may be found at page 214 of this journal.

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*For the Genesee Farmer.*

## Pulverized Limestone as a Manure.

The account of pulverized limestone employed as a manure, to which I have referred at page 123 of the current volume of the Genesee Farmer, I believe was written by Dr. Anderson; but it is many years since I read the article, and it is not now in my possession. I have not indeed repeated the experiment; neither do I know of any person who has done so; but no doubt can exist of the correctness of the account. To burn lime for manure, is commonly done because it is considered the cheapest way of reducing it to an impalpable powder. The carbonic acid which the stone loses during this process, is again rapidly absorbed from the atmosphere; and the lime in its *constituent parts* differs in no respect from what it was originally in the stone. Of course, it differs in its *texture*. It also differs in another particular which is very important to the agriculturist, but which is common to many other earthy substances when in a state of extreme division: It has acquired the power to attract moisture from the atmosphere. If it were coarser, or in particles of the size of small shot, it would render a heavy loam more friable; and in this way contribute to its fertility; but it would be less efficacious as an alkaline manure.

In the mills which were erected in Scotland to pulverize limestone, the *flour* was discharged into a vat filled with water, on the bottom of which the coarser particles were permitted to settle, while the impalpable parts were diffused through the fluid, and then passed off slowly into other vats in which they were allowed a much longer period to subside. The reason given for the abandonment of this business, was that the roads in that part of Scotland were too rugged for the conveyance of the lime to any considerable distance.

*Soft* limestone is commonly caused by the presence of either magnesia or argillaceous earth. "When it is not sufficiently hard to scratch glass," says Sir Humphry Davy, "but effervesces slowly; and makes the acid in which it effervesces *milky*, it contains magnesia." The disadvantage of employing *burnt* magnesian limestone, arises from the circumstance of its remaining a long time in a caustic state, during which period it

ever, experience is the best school master. We might perhaps have supposed that the wrapping the cask in woollen blankets had a powerful influence upon the liquor in the cask, had not the statement informed us, that a cask under all other circumstances alike, kept equally well. The only difference being this, that at the middle of August the cider in the cask wrapped in woollen was colder than the other. The cellar of Mr. Kimball would not generally be considered as favorable for the preservation of cider. It is of a dry sandy nature, and by the first of July generally gets warm. But perhaps Mr. Kimball has laid down the best mode which is drawn from his own experience—good fruit well assorted, and in a proper state of ripeness, with clean sweet casks, and a properattention to the admission of air. The Committee adjudge the first premium of fifteen dollars to Mr. Kimball, and they have purchased the cider for ten dollars to be used at the dinner of the Society.

*From the New England Farmer.*

## Farmer's Work.

*Cradling Grain.*—The use of the scythe and cradle for harvesting grain is gaining ground in the New England states; and we think they will eventually be still more generally employed, when the advantages presented by those implements have been further tested by experience. The use of these labor saving machines in the southern and western states is said to have been general for many years, where their advantages are fully appreciated. We are told that a man accustomed to the grain cradle, will with that implement, cut, and place in regular order for binding into sheaves, five acres in a day, or in less time than a good reaper can cut one acre. This difference is so great that we believe the scythe and cradle will be universally adopted as a substitute for the sickle, except in cases where the grain is either very thick and heavy, or much lodged and tangled, and must therefore be hooked up and gathered and cut off by a process almost as tedious as counting "each particular hair" on the hide of a buffaloe.

The late John Lorrain, in his valuable work on husbandry, has the following remarks on this subject:

"Custom has induced farmers generally to believe that it is an improper and wasteful practice to cut either wheat or rye with the scythe and cradle. If the grain be neither lodged nor entangled, it may be cut off as clean by the scythe and cradle as by the sickle. If it be properly gathered and bound, but little if any more loss will arise from gathering it in this way. If the grain be cradled in proper time, it shatters less on the whole than when it is reaped and secured in the usual way. It is readily granted that if grain be cradled and reaped at the same time, it shatters more by the former practice. It should be recollected, however, that the very tardy progress of the sickle greatly increases the shattering, by procrastinating the harvest so long that the chaff opens, and much of the grain falls out; whereas the rapid progress of the scythe and cradle cuts off the grain before any material loss from shattering can take place, if the cultivator commence in time. No evil but much good will arise from beginning early. This not only prevents shattering, but also the risk of encountering the various injuries to which the crop is exposed by useless delay."

Several sorts and varieties of implements for cradling grain have been used and recommended. Among these is one described and figured, New England Farmer, vol. vii. p. 33, invented by Payson Williams, Esq. of Fitchburg, Massachusetts. They are also for sale at the Agricultural Warehouse, Nos. 51 and 52 North Market street, Boston, made according to the latest and most approved construction.

*Look to your Cattle, &c.*—Haying and harvesting are now pressing avocations, but some other things should not be neglected. Cattle, sheep and horses in fields should be frequently inspected a
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grinder giving way, which is succeeded by a larger and permanent tooth, and between two years and a half and three years the two middle nippers are displaced and succeeded by permanent teeth. At three years old the sixth grinder has either made, or is about making its appearance. In the fourth year another pair of nippers and a second pair of grinders are shed; and the corner nippers, toward the end of the fifth year, are succeeded by permanent teeth, when the mouth is considered almost perfect, and the colt or filly becomes a horse or a mare. What is called the *mark* of the teeth by which a judgment of the age of a horse for several years may be formed, consists of a portion of the enamel bending over and forming a little pit in the surface of the nipper, the inside and bottom of which become blackened by the food. This soon begins to wear down, and the *mark* becomes shorter and wider and fainter. By the end of the first year the mark in the two middle teeth is wide and faint, and becomes still wider and fainter till the end of the third year, by which time the center nippers will have been displaced by the permanent teeth, which are larger than the others, though not yet so high, and the mark is long, narrow, deep and black. At four years the second pair of permanent nippers will be up, the mark of which will be deep, while that of the first pair will be somewhat fainter, and that of the corner pair nearly effaced. At this age, too, the tushes begin to appear. Between the fourth and fifth year, the corner nippers have been shed, and the new teeth

which, with many other poisonous weeds, are fast overrunning the country, and changing its once healthy inhabitants, into the sickliest nation I have ever sojourned among.

My object in addressing you, is, to give your readers an account of a case of poison by this formidable weed, which I cured last week at the Vapor Bath Establishment, 305 East Broadway, barely premising that having sold my patent right for this state, to a gentleman of this city, I have no share whatever in its revenues nor in those of the establishment at 280 Broadway.

Mrs. Haeselbarth, wife of Mr. A. A. C. Haeselbarth, 287 Bleecker street, was at Hoboken 21st ult., and there came in contact with the Rhus Toxicodendron. The following morning she felt, on leaving her bed, a pricking pain in the face, and a slight swelling of one eye, which

increased during the day to that degree, that at 9 o'clock, P. M. the pain was excessive and her eyelids were completely closed. On Wednesday morning, her head and neck were so swollen, that her eyes and nose could not be distinguished. A physician was called, who continued his attendance till Friday morning, but he could afford little relief. The mucous membrane of the lungs, as well as the throat, mouth and tongue, had suffered excessively by inhaling the air after it had passed over this baneful plant.

Her pastor, the Rev. Mr Dunbar, hearing of her situation, called upon and advised her to have recourse to the Vapor Bath; she was accordingly conveyed to 305 East Broadway, in a car-

with the accounts we receive of whole villages being depopulated by milk fever, and by eating the meat and butter, and drinking the milk of animals feeding on poisonous plants, will rouse the public to some sense of danger, and especially the populous state of Ohio, which suffers more perhaps than any other state in the Union from these evils. I hope an early application will be made me to prepare some spirited person for conducting a Vapor Bath at Cincinnati, from which branches may be sent to the neighboring states.

Your faithful servant,

CHARLES WHITLAW.

*To keep off or drive away Bed-bugs.*—Make a strong decoction of red pepper, when ripe, and apply it with a common paint brush to the joints of the bedsteads, wainscoting, &c. where these odious insects usually resort, and it will speedily kill or expel them.

*From the New England Farmer.*

The following communication appears to us to be very valuable, and we think will prove useful in ensuring the vegetation of many other small seeds as well as flower seeds:

## Improved Method of Sowing Delicate Flower Seeds.

Mr. Barrett—I have frequently experienced much difficulty in cultivating some kinds of annual flowers, especially those having small seeds, such as the Golden Coreopsis, Crepis, Ice Plant, and others. In sowing such seeds, it is necessary that the earth should be made very fine, which only renders it much more liable to pack, and the rain soon beats it down so firmly that the seeds when beginning to vegetate, are unable to raise it, and consequently perish. The covering also being thin, a warm sun soon bakes it dry,

sists in first, saving the gaseous matter which escapes from manure while undergoing fermentation, and the liquids which flow from the dung heap; and second, in rendering vegetable matter soluble, and food for plants which was before inert and useless. Thus if earth is mixed with and spread over a pile of dung while it is fermenting, it imbibes the volatile and liquid parts of the manure which would otherwise be lost, and this becomes almost as fertilizing as the manure itself. This fact shows that manure loses much in fermenting, for it loses all the earth gains. If peaty or swamp earth is employed, a double object is gained; for while it prevents waste in the manure, it is of itself converted into manure, (being composed of vegetable matter,) by the process of fermentation. But when the object is merely to prevent waste in the dung, the process is most economically effected *in the soil;* where both the gases and the liquids will be retained, and by which the transportation of the earth to and from the dung yard, is saved. When the manure cannot be conveniently used upon *hoed* crops before fermentation, then a bedding and covering of earth for the pile is a matter of economy and should not to be omitted. So if it is desired to convert the vegetable deposit of swamps into manure, it may be readily and profitably done by alternating it in layers with hot dung. In this case one part of dung to three parts of swamp earth will suffice. A layer of dung five or six feet broad, and as long as necessary, is first deposited on a proper piece of ground, then a layer of earth over it, and in this way alternate layers should be added until the pile is five or six feet high. As soon as the mass gets into a state of fermentation, which may be ascertained by plunging into it a stick for a few moments, and ascertaining thereby its heat, the compost is fit for use. This will require weeks or months according to the temperature of the weather.

It will be perceived that composts in which no fermentation takes place, can be of little advantage.

There is no volatile matter to be given off, and no tendency exists to break down and render soluble ligneous and woody matter. Lime operates more powerfully than dung in inducing fermentation in vegetable matter, though it is not prudent to use it in combination with stable dung; I have found by experience, that it causes a too violent action, and dissipates nearly all its fertilizing properties. Composts are particularly adapted to all the family of small grains, and for top-dressing grass grounds, where this latter practice is tolerated. Mere earthy matters add nothing to the compost pile; they merely prevent the waste of other materials which compose it. In making composts, therefore, for field use, earths should be preferred which abound in vegetable matter; and the litter, vegetable refuse, urine, soap suds, ashes, &c. should be added, which are ordinarily wasted, and which form annually a large aggregate upon a farm.

☞ List of payments next week.

## PRICES CURRENT.

| ARTICLES. | PER | Aug. 9. ROCHESTER. | Aug 4. NEW-YORK. |
|---|---|---|---|
| Ashes—Pot.... | 100lbs. | $3,25..... | $3,90 a 4,00 |
| —— Pearl.. | ..... | 3,50..... | 4,20 a 4,30 |
| Beeswax, yellow | lb. | 0,16 a 0,18 | 20 a 21 |
| Candles, mould | ..... | 0,10 a 0,11 | 13.a 14 |
| —— dipped. | ..... | 0,09 a 0,10 | 11 a 12 |
| Cloverseed..... | ..... | 6¼.... ... | 6 .a.6¼ |
| Flax, American. | ..... | ..... | 7½..a.00 |
| Flax seed, clean | tierce | 9,00a10,00 | 10,50a11,00 |
| Flour, Western. | barrel | 4,50..... | 4,88a5,00 |
| Grain, Wheat.. | bushel | 0,81¼.... | 1,02 a1,04 |
| —— Rye.... | ..... | 0,62..... | 66.a..67 |
| —— Oats... | ..... | 0,25.a..27 | 40..a..00 |
| —— Corn... | ..... | 0,44..... | 72.a..73 |
| —— Barley.. | ..... | 0,00.a..00 | 00.a..00 |
| Hemp, Americ'n | ton | ..... | 100 a 125 |
| Hops, 1st sort . | lb. | ..... | 17.a..18 |
| Plaster Paris... | ton | 6,00 a 0,00 | 2,50 a2,62 |
| Beef, Mess.... | barrel | 0,00 a10,00 | 9,12 a9,75 |
| —— Prime.... | ..... | 0,00 a 8,00 | 5,62 a 5,75 |
| Pork, Mess.... | ..... | 14,00a15,00 | 13,25a14,00 |
| —— Prime.... | ..... | .....11,00 | 9,25a10,25 |
| —— in the hog. | 100lbs. | 4,00..... | ..... ..... |
| Tallow..... | ..... | 7,50 a 8,00 | 6,75 a 7,00 |
| Hay..... | ton | 7,00 a 8,00 | 9,00a11,20 |
| Apples..... | bushel | 50.a.100 | ..... |


## *Valuable Books for Farmer*

FOR SALE BY HOYT & PORTER, ROCHESTER.

BROWNE's Sylvia Americana, or a description of the Forest Trees indigenous to the United States, practically and botanically considered, illustrated with more than 100 engravings. Price $2 50.

Manual of a Naturalist, with directions for preserving subjects of natural history. Price 50 cts.

Moubray's Treatise on breeding, rearing and fattening all kinds of Poultry, Cows, Swine, and other domestic animals, abridged and additions by T. G. Fessenden, Editor New England Farmer. Price 75 cents.

Mason, Lawrence, Hind and Barnum's Treatises on the Disease of Horses.

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*Ticks on Lambs.*—About this time your lambs will be infested with ticks escaped from the sheep after shearing. To get rid of these troublesome visitants you may dip the lamb, back downward, into a pretty strong decoction of tobacco, which may be made from the stems for the sake of economy. After having destroyed the ticks as aforesaid, the residue of the decoction may be applied to benefit slugs, ants, and other insects which infest your fields and gardens.

*Save and dry Herbs for Medicinal purposes.*—Among others we would recommend balm, chamomile, colt's foot, elder flowers, hore hound, hysop, maidenhair, mint of several sorts, penny royal, rose leaves, rosemary, rue, saffron, sage, snake root, summer savory, tansy, thyme, &c. They should be gathered in dry weather, while in flower, and dried in the shade.

## Age of the Horse.

The method of judging the age of a horse is by examining the teeth, which amount to forty when complete; namely, six nippers, or incisors, as they are sometimes called, two tushes, and six grinders on each side in both jaws. A foal, when first born, has in each jaw the first and second grinders developed; in about a week the two center nippers make their appearance, and within a month a third grinder. Between the sixth and ninth month the whole of the nippers appear, completing the *colt's mouth*. At the completion of the first year, a fourth grinder appears, and a fifth by the end of the second year. At this period a new process commences, the front or first grinder giving way, which is succeeded by a larger and permanent tooth, and between two years and a half and three years the two middle nippers are displaced and succeeded by permanent teeth. At three years old the sixth grinder has either made, or is about making its appearance. In the fourth year another pair of nippers and a second pair of grinders are shed; and the corner nippers, toward the end of the fifth year, are succeeded by permanent teeth, when the mouth is considered almost perfect, and the colt or filly becomes a horse or a mare. What is called the *mark* of the teeth by which a judgment of the age of a horse for several years may be formed, consists of a portion of the enamel bending over and forming a little pit in the surface of the nipper, the inside and bottom of which become blackened by the food. This soon begins to wear down, and the *mark* becomes shorter and wider and fainter. By the end of the first year the mark in the two middle teeth is wide and faint, and becomes still wider and fainter till the end of the third year, by which time the center nippers will have been displaced by the permanent teeth, which are larger than the others, though not yet so high, and the mark is long, narrow, deep and black. At four years the second pair of permanent nippers will be up, the mark of which will be deep, while that of the first pair will be somewhat fainter, and that of the corner pair nearly effaced. At this age, too, the tushes begin to appear. Between the fourth and fifth year, the corner nippers have been shed, and the new teeth come quite up, showing the long deep irregular mark; the other nippers bearing token of increased wearing. At six years the mark on the center nippers is worn out, but there is still a brown hue in the center of the tooth. At seven years the mark will be worn from the four center nippers, and will have completely disappeared at eight years from them all. It may be added, that it is the lower jaw of the horse that is usually examined, and which is here described. The changes of the teeth taking place in both jaws about the same time, but the cavity of the teeth in the upper jaw being somewhat deeper, the mark lasts longer, though the exact period is a matter of controversy. According to what may be considered good authority, however, it may be stated that at nine years the mark will be worn from the middle nippers, from the next pair at ten, and from all the upper nippers at eleven. During all this time the tushes (the extremities of which are at first sharp pointed and curved,) become gradually blunter, shorter and rounder.—*Library of Useful Knowledge.*

PUBLISHED BY REQUEST.

## Milk Sickness.

*From the Commercial Advertiser.*

Messrs. Editors—You will no doubt bear in your remembrance the reports which reach us from the far west of the ravages committed among its inhabitants, by what is called the milk sickness, as well as among its cattle and horses, when they eat a certain shrub or weed. I am sorry to say that these evils are not confined to that rich valley. A few weeks ago, one man who supplies milk in this city, lost twelve cows and two horses within a week, and another lost two cows as suddenly. These evils are caused by the Rhus Toxicodendron, or poisonous sumach, which, with many other poisonous weeds, are fast overrunning the country, and changing its once healthy inhabitants, into the sickliest nation I have ever sojourned among.

My object in addressing you, is, to give your readers an account of a case of poison by this formidable weed, which I cured last week at the Vapor Bath Establishment, 305 East Broadway; barely premising that having sold my patent right for this state, to a gentleman of this city, I have no share whatever in its revenues nor in those of the establishment at 280 Broadway.

Mrs. Haeselbarth, wife of Mr. A. A. C. Haeselbarth, 287 Bleecker street, was at Hoboken 21st ult., and there came in contact with the Rhus Toxicodendron. The following morning she felt, on leaving her bed, a pricking pain in the face, and a slight swelling of one eye, which

increased during the day to that degree, that at 9 o'clock, P. M. the pain was excessive and her eyelids were completely closed. On Wednesday morning, her head and neck were so swollen, that her eyes and nose could not be distinguished. A physician was called, who continued his attendance till Friday morning, but he could afford little relief. The mucous membrane of the lungs, as well as the throat, mouth and tongue, had suffered excessively by inhaling the air after it had passed over this baneful plant.

Her pastor, the Rev. Mr Dunbar, hearing of her situation, called upon and advised her to have recourse to the Vapor Bath; she was accordingly conveyed to 305 East Broadway, in a carriage. She was placed in the Bath fifteen minutes, during which time the swelling subsided almost like a blown bladder, upon exhausting its air. She went in blind, and came out restored to sight, and free from pain. When she reached home she was able to sit at her tea table, and perform her domestic duties about her house, nor has she had any return either of the pain or swelling; indeed, yesterday she *walked* near two miles to take a bath at the establishment at 280 Broadway, with perfect ease to herself.

If those who have the care of the public health, had witnessed this most distressing case, and then were informed of the extent to which it obtains, not only in the great Western Valley, but even in this state, their feelings must have excited them to energetic efforts in behalf of their suffering countrymen. All the vegetables which are of so destructive a nature, can be readily pointed out to the farmers and eradicated. It is true that when milk fever rages, the poison can be forthwith expelled by the Vapor Bath, properly medicated, but my object is, and has been ever, (as those who have heard me lecture will testify,) less to attract patients to the Vapor Bath, than to purge a country to which I feel greatly attached, of the causes of death to hundreds of thousands annually.

A physician in Grand street has just informed me of the great mortality which has taken place in the city in consequence of the unfortunate treatment of the puerpereal fever and erysepelas. Every case of these diseases might be saved by timely application of the Bath. I can affirm and prove what I say, that is, thirteen years' practice in London, I have not lost one case of puerpereal fever.

I hope the publication of this case, together with the accounts we receive of whole villages being depopulated by milk fever, and by eating the meat and butter, and drinking the milk of animals feeding on poisonous plants, will rouse the public to some sense of danger, and especially the populous state of Ohio, which suffers more perhaps than any other state in the Union from these evils. I hope an early application will be made me to prepare some spirited person for conducting a Vapor Bath at Cincinnati, from which branches may be sent to the neighboring states.

Your faithful servant,

CHARLES WHITLAW.

*To keep off or drive away Bed-bugs.*—Make a strong decoction of red pepper, when ripe, and apply it with a common paint brush to the joints of the bedsteads, wainscoting, &c. where these odious insects usually resort, and it will speedily kill or expel them.

*From the New England Farmer.*

The following communication appears to us to be very valuable, and we think will prove useful in ensuring the vegetation of many other small seeds as well as flower seeds:

## Improved Method of Sowing Delicate Flower Seeds.

Mr. Barrett—I have frequently experienced much difficulty in cultivating some kinds of annual flowers, especially those having small seeds, such as the Golden Coreopsis, Crepis, Ice Plant, and others. In sowing such seeds, it is necessary that the earth should be made very fine, which only renders it much more liable to pack, and the rain soon beats it down so firmly that the seeds when beginning to vegetate, are unable to raise it, and consequently perish. The covering also being thin, a warm sun soon bakes it dry, and the seeds are also liable to be destroyed by the heat, and want of moisture. To obviate these difficulties, I have adopted the following very simple and effectual remedy. If the seeds are sown in patches, I take a piece of newspaper, about the size of the patch to be covered, and laying it on the carpet, or some other soft place, I puncture it quite thickly with a large sized darning needle, which operation can be performed with great ease in a very few minutes. This paper is then laid over the patch, and confined at the edges by a few small stones or by pegs; and it will lie so close to the ground, especially if it be wet immediately afterwards, as to be in no danger of being disturbed by the wind. All the rain that falls upon the paper will gradually ooze through it, and the ground being thus protected from the sun, will be constantly moist, warm and light. Neither will the paper be any obstruction to the shooting of the young plants, as they can raise it with ease, though it ought to be entirely removed as soon as they have penetrated the surface. Another advantage of this method is, that in case of very dry weather, the smallest seeds thus protected, whether they be sowed in pots or borders, may be freely watered with any common watering pot. If the seeds be sowed in drills, the paper is to be cut in strips, and punctured along the middle, about the same width as that of the space occupied by the seeds.

I have conversed with many persons upon this subject, to all of whom the above described method was entirely new, and if you think it will be of any service to others, you are at liberty to make it public. Yours, respectfully,

Henry Williams.

*Marlboro', July* 18, 1834.

*From the Cultivator.*

## Composts.

Much has been said and written in favor of compost manures; and under many circumstances they really afford a valuable accession to the fertilizing materials of a farm. But when the object to be obtained is not fully understood, they sometimes occasion a useless expenditure of labor. Composts are a mixture of animal dung, lime, ashes, vegetable matter and earths—two or more of them. The economy of composts consists in first, saving the gaseous matter which escapes from manure while undergoing fermentation, and the liquids which flow from the dung heap; and second, in rendering vegetable matter soluble, and food for plants which was before inert and useless. Thus if earth is mixed with and spread over a pile of dung while it is fermenting, it imbibes the volatile and liquid parts of the manure which would otherwise be lost, and this becomes almost as fertilizing as the manure itself. This fact shows that manure loses much in fermenting, for it loses all the earth gains. If peaty or swamp earth is employed, a double object is gained; for while it prevents waste in the manure, it is of itself converted into manure, (being composed of vegetable matter,) by the process of fermentation. But when the object is merely to prevent waste in the dung, the process is most economically effected *in the soil;* where both the gases and the liquids will be retained, and by which the transportation of the earth to and from the dung yard, is saved. When the manure cannot be conveniently used upon *hoed* crops before fermentation, then a bedding and covering of earth for the pile is a matter of economy and should not to be omitted. So if it is desired to convert the vegetable deposit of swamps into manure, it may be readily and profitably done by alternating it in layers with hot dung. In this case one part of dung to three parts of swamp earth will suffice. A layer of dung five or six feet broad, and as long as necessary, is first deposited on a proper piece of ground, then a layer of earth over it, and in this way alternate layers should be added until the pile is five or six feet high. As soon as the mass gets into a state of fermentation, which may be ascertained by plunging into it a stick for a few moments, and ascertaining thereby its heat, the compost is fit for use. This will require weeks or months according to the temperature of the weather.

It will be perceived that composts in which no fermentation takes place, can be of little advantage.

There is no volatile matter to be given off, and no tendency exists to break down and render soluble ligneous and woody matter. Lime operates more powerfully than dung in inducing fermentation in vegetable matter, though it is not prudent to use it in combination with stable dung; I have found by experience, that it causes a too violent action, and dissipates nearly all its fertilizing properties. Composts are particularly adapted to all the family of small grains, and for top-dressing grass grounds, where this latter practice is tolerated. Mere earthy matters add nothing to the compost pile; they merely prevent the waste of other materials which compose it. In making composts, therefore, for field use, earths should be preferred which abound in vegetable matter; and the litter, vegetable refuse, urine, soap suds, ashes, &c. should be added, which are ordinarily wasted, and which form annually a large aggregate upon a farm.

☞ List of payments next week.

## PRICES CURRENT.

| ARTICLES. | PER | Aug. 9. ROCHESTER. | Aug 4. NEW-YORK. |
|---|---|---|---|
| Ashes—Pot.... | 100lbs. | $3,25..... | $3,90 a 4,00 |
| —— Pearl.. | ..... | 3,50..... | 4,20 a 4,30 |
| Beeswax, yellow | lb. | 0,16 a 0,18 | 20 a 21 |
| Candles, mould | ..... | 0,10 a 0,11 | 13 a 14 |
| —— dipped. | ..... | 0,09 a 0,10 | 11 a 12 |
| Cloverseed..... | ..... | 6½..... | 6 a 6½ |
| Flax, American. | ..... | ..... | 7½..a.00 |
| Flax seed, clean | tierce | 9,00a10,00 | 10,50a11,00 |
| Flour, Western. | barrel | 4,50..... | 4,88a5,00 |
| Grain, Wheat.. | bushel | 0,81½.... | 1,02 a1,04 |
| —— Rye.... | ..... | 0,62..... | 66..a..67 |
| —— Oats... | ..... | 0,25..a..27 | 40..a..00 |
| —— Corn... | ..... | 0,44..... | 72..a..73 |
| —— Barley.. | ..... | 0,00..a..00 | 00..a..00 |
| Hemp, Americ'n | ton | ..... | 100 a 125 |
| Hops, 1st sort . | lb. | ..... | 17..a..18 |
| Plaster Paris... | ton | 6,00 a 0,00 | 2,50 a2,62 |
| Beef, Mess.... | barrel | 0,00 a10,00 | 9,12 a9,75 |
| —— Prime.... | ..... | 0,00 a 8,00 | 5,62 a 5,75 |
| Pork, Mess.... | ..... | 14,00a15,00 | 13,25a14,00 |
| —— Prime.... | ..... | .....11,00 | 9,25a10,25 |
| —— in the hog. | 100lbs. | 4,00..... | ..... ..... |
| Tallow..... | ..... | 7,50 a 8,00 | 6,75 a 7,00 |
| Hay..... | ton | 7,00 a 8,00 | 9,00a11,20 |
| Apples..... | bushel | 50..a.100 | ..... |


## *Valuable Books for Farmer*

FOR SALE BY HOYT & PORTER, ROCHESTER.

BROWNE's Sylvia Americana, or a description of the Forest Trees indigenous to the United States, practically and botanically considered, illustrated with more than 100 engravings. Price $2 50.

Manual of a Naturalist, with directions for preserving subjects of natural history. Price 50 cts.

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Mason, Lawrence, Hind and Barnum's Treatises on the Disease of Horses.

## Transactions of the Essex Agricultural Society for 1833.

The Rev. Henry Colman will please accept our thanks for his politeness in sending us the annual publication of this Society, which is, we believe, one of the most efficient and useful in our country. Its Transactions for 1833, make an octavo pamphlet of a hundred pages, embracing the annual Address, Reports of Committees, Statements of those who received Premiums, a very interesting communication from Mr. Colman on Feeding and Fattening of Swine, &c. &c. from which we intend to make liberal extracts for the Farmer.

### DR. SPOFFORD'S ADDRESS.

The Address before the Society at its last meeting, was delivered by Jeremiah Spofford, and is replete with advice to which it would be well for the farmers of New York as well as of New England to take heed. After enumerating the advantages which the farmer of New England enjoys, Dr. S. says:

Let us now attend to some of the means essential for the improvement and enjoyment of these advantages.

### UNTIRING INDUSTRY.

And one of the first requsites for the improvement of our advantages is—*untiring industry*.

It is often literally true that the hand of "the diligent maketh rich;" but where from any cause it fails to enable a person to gather *heaps of shining dust*, it always in this land enables the diligent to possess constantly and plentifully the necessaries and comforts of life, which to every reasonable mind is true riches.

To no class of men does this necessity of constant industry apply more forcibly than the farmer. He turns his own wheel of fortune, more emphatically than almost any other class; those great and sudden turns of fortune which sometimes raise or depress others, lay quite out of his track. With firm foothold he climbs the *ascent* to wealth; or with loosened energies he slides down the gradual *descent* to poverty.

The eyes of the master or owner must pervade the whole establishment; his mind and his hands must be equally ready to do their appropriate work; his example must be such that no idler can feel easy for an hour on his premises.

### SYSTEMATIC PLANS.

Another requisite to prosperity is *systematic plans*. Men who have no enterprise to plan will have still less if possible to execute. Few men do more than they intend to do, and there are or ought to be few who have not ambition enough to rouse all their energies to accomplish what they have once deliberately planned to do.

I would by no means encourage or excite inordinate ambition, but still a desire for property, and accommodation (call it by what name you please) is the life-spring of all that is laudable and valuable in society.

That man who is the mere child of circumstances, acting only as he is acted upon by his necessities, may enjoy a kind of *Indian tranquility*, but with such men only, the march of improvement must stop in its course, and society fall back into barbarism.

That man who aims at nothing, will certainly accomplish nothing; he that is content with a cabin, will never possess a palace; but he that figures to himself the conveniencies and elegancies of life, will make exertion to obtain them and will enjoy at least as much in a well directed pursuit, as in the full possession.

The farmer who is content with a shabby house, wooden fences, and ten bushels of corn or five hundred of hay to the acre, will seldom find himself in a better situation, while he who plans to possess good buildings, permanent fences, and to see his lands ornamented with fruit trees, and covered with seventy bushels of corn, and three tons of hay, to the acre, with life and a common blessing, will certainly accomplish his plans.

You are perhaps most of you familiar with the history of Sir William Phipps, who raised himself from a wood coaster from the then wilderness of Maine, to be knighted by King William, and made Governor of Massachusetts!

He used to say when in his lowest state, that he should live in a brick house in Green lane, (now Brattle-street,) Boston, and command better men than he was then thought to be himself—and his own confident perseverance accomplished what he had planned. He had his brick house in Green lane, and commanded in chief the State of Massachusetts. Now all cannot be Governors, nor raise from the ocean a Spanish galleon laden with gold as he did, but all by good plans, with industry, economy, and health, can obtain that which is just as good, comfortable dwellings, good farms, and a competency of other appendages.

### THE FARMER'S MIND SHOULD BE IN HIS BUSINESS.

A third requisite for success to the farming interest is that the farmer's mind should be in his business. That man who is above his business, is in danger of soon finding that he has got below it; for no business will long sustain a man when his mind has got above it. That farmer who devotes his mind and his energies to his farm, till it is so far improved that it elevates him above the necessity of constant labor, is the most independent and enviable character in our country; free from the responsibility of office, and the toils and the cares of a profession, he eats the fruits he has reared, with more zest than can be realized by any other class. A good farm covered with flocks and herds and fruits, is a truly enviable possession, and like Robinson Crusoe, the farmer is often "monarch of all he surveys."

### FARMERS SHOULD KEEP CORRECT ACCOUNTS.

Another requisite to prosperity, is the keeping of good accounts. Farmers not being under that constant necessity of using the pen which attaches to men of business, are too apt to throw it quite aside; and it is believed have often suffered by trusting to others' accounts, to memory, or to marks on their doors and wainscots.

To record in a book kept for the purpose, all their labor and experiments on their farms, as recommended by a distinguished agriculturist, in your last annual pamphlet, I have no doubt would richly compensate the labor, but it is my present purpose to urge the necessity of keeping a fair and exact account of the date and circumstances of every money or barter transaction between man and man. It would save many of those uncharitable thoughts and hard speeches which often alienate friends, and disturb the peace of neighborhoods.

If every person kept exact accounts of all his debts and credit, law suits would be very unfrequent, and our friends the lawyers would be relieved from the disagreeable necessity of sending their uncharitable "Greetings," or writing "your goods and chattels are attached," or "for want thereof take the body." And as I always rejoice when the bodily health of the community is such as to relieve physicians from the care of the sick, to turn their attention to their books, their farms, and their gardens; so will I rejoice when the health of the body politic, is such, that our much esteemed friends, the lawyers, may be *entirely* relieved from professional cares, to devote their, distinguished talents to employments more profitable to community.

### INFLUENCE OF AGRICULTURAL SOCIETIES.

Finally, my friends, I congratulate you on the prosperous condition in which this anniversary finds your society. How the exhibition of this day may compare with preceding ones, in its details, I am unprepared to state; but that the society has exalted the standard of agriculture, called into exercise a great amount of female ingenuity, promoted harmony and useful intercourse, diffused the knowledge of useful facts, and exerted a beneficent influence, I have no reason to doubt.

The formation and support of societies is among the most efficient means of improvement in all the useful arts of the present day. It encourages and rewards the spirit of enterprise; it diffuses the knowledge of useful experiments, and introduces the use of important inventions; and tends by multiplying opportunities of social intercourse, to do away those illiberal feelings, and groundless jealousies, which often exist between different sections of country, and sometimes even disturb the harmony of towns and neighborhoods.

Some have entertained doubts of the utility of this annual festival, as a useless expense of time and money. Let such remember that man is a social being, that a constant unvaried round of solitary labor is unfitted to his nature, and by no means adapted to the highest development of his intellectual and physical energies. Divines, lawyers, physicians, have their societies, in which they meet to discuss their professional operations and brighten their minds by friendly collision. Merchants daily assemble on 'change, to learn the interests and improve the facilities of trade. And shall the farmers deny themselves a day, on which all who take an interest in agriculture can meet on common ground, merely because they do not handle the direct and palpable income of a day's labor? No! Their necessities do not demand it, and the place they occupy in our community forbids the slavish idea.

Societies are found the most direct means of accomplishing almost every enterprise in our growing republic; and annual or periodical festivals, have the sanction of scripture, and the remotest antiquity. The Jewish ritual enjoined a festival and offering of fruits at the ingathering of the harvest, a day in which they should "*do no servile labor.*" The Romans and the Greeks had their agricultural festivals, dedicated to Backus and Ceres, whom they honored as the gods of corn and wine: and it has also the sanction of reason, as the fruits of autumn fall, to assemble

mutually to communicate the result of their labors, and enjoy what has been emphatically styled *the farmer's holiday.*

Long may this society enjoy the smiles of heaven. Long may they enjoy the character for industry, sobriety and morality, which for two centuries has distinguished the farmers of New England. And long may they continue to reap abundant harvests,

"Till the great reaping time shall come,
"And angels shout the harvest home."

REPORTS ON FARMS.

From the Report of the Committee on Farms, we make the following extracts:

The farm of Mr. Chase consists of a variety of soil of good quality, a part of it being hilly, and a part wet meadow land. As a whole, it presented that improved aspect which is the natural result of a long course of industry and good husbandry. The quantity of products given in his statement, is large in proportion to the amount of labor employed, yet there were no indications of neglect in any of the operations of the farm. His product of Indian corn, two hundred and forty-nine bushels on four acres, which produced also twenty-five bushels of potatoes and forty bushels of turneps is large, considering that the season was not favorable to Indian corn. He considered that the application of ashes to his corn at the second hoeing, was beneficial to the crop, and in this opinion we believe he is sustained by the experience of farmers generally. His crop of eleven hundred and twenty-eight bushels of potatoes, on four acres,—a hill, steep enough to deter many farmers from attempting to plough it, must also be considered a very good one for the season Mr. Chase thinks he has improved a hilly pasture, by ploughing horizontal furrows round the hill, in the manner recommended by Rev. G. B. Perry, in the Transactions for the Society for 1830. Indeed he seems to have done precisely what good husbandry dictated, in ditching and draining land that was too wet, and in retaining the moisture on that which was too dry.

Your Committee thinking that the farm of Mr. Chase presents an example of judicious, prudent and economical management, regarded as a whole, consider him as deserving, and accordingly award to him the Society's first Premium of *Thirty Dollars.*

The farm of Doctor Kittredge, is situated on a very beautiful swell of land in the North Parish of Andover. It is a rich and rather moist soil inclining to gravel, and has been brought by the liberal use of manure to a high state of fertility. The whole farm presented the appearance of good husbandry. The stock was good, and in good condition, the crops were clean, and a very handsome orchard was in a thrifty, bearing condition. Dr. K.'s corn crop was nearly as large as Mr. Chase's on the same number of acres, and their modes of cultivation were very similar except in the distance of the hills. His experiment in raising winter wheat was highly successful, and the product of forty bushels from one hundred and thirty rods of land sown with winter rye, is uncommonly large, being at the rate of fifty bushels to the acre. Doctor Kittredge attributed much of his success in raising large crops of corn and potatoes, to the practice of fall ploughing, while Mr. Chase expressed to the Committee, his preference for spring-ploughing, and thus an important question is presented, which the Committee will not now attempt to decide. A long essay might be written on the comparative advantages of spring and fall ploughing, and we hope some member of the society will confer on it the favor of furnishing for its Transactions, a full examination of this interesting question.

It is almost surprising that in an art so old as agriculture, there should still exist such differences of opinion in regard to most of its operations; but it should be remembered, that these questions can only be settled by a great number of accurate experiments, made with a due reference to soil, manure, seasons, and other circumstances, and that it is only within a few years, that Science has been invoked to lend her aid in the operations of Husbandry.

Your Committee, considering the farm of Doctor Kittredge as a specimen of liberal, thorough, and successful cultivation, award to him the Society's second Premium of *Twenty-seven Dollars.*

MANUFACTURE OF CHEESE.

From the statement of Mr. *Wm. Thurlow*, who received the second premium on Cheese, we select his account of the manner in which it was made:

The cheese made agreeably to the rules of the society in the months of June, July, August and September, amounts to more than twenty-five hundred pounds.

For its manufacture, the rennet is taken from the calf and allowed to perfectly cool, when it is very slightly rinsed in cold water and put down with strong rock salt. When taken out for use, one rennet is put into a stone pot, and one quart of water (after being boiled and cooled) put to it, and a cold brine, sufficiently strong to keep the rennet is made with the same kind of salt. Of this liquor is used from a gill to a half pint to every 30 gallons of milk, according to the strength of the rennet, heat of the milk, and state of the weather; always taking more rennet when the weather and milk is cooler, less when warmer. It is then allowed to stand from three quarters to a full hour, before breaking up the curd, believing it to be very important during the warmth of the weather to get the curd in the press as early as possible. From the beginning of breaking up the curd, the operation is continued till it is sufficiently hard and fit to scald, when it is scalded from fifteen to twenty minutes with scalding whey, as the tenacity and state of the curd require. It then is allowed to remain till perfectly cool, when it is ground up in a curd mill; after which process it is put into the cheese hoop in layers, salting each layer by judgment, as the softness, hardness and tenacity of the curd may require, using the dry and whitest Liverpool blown salt. It is then put into the press, and allowed to stand half an hour, when it is first turned; then it is allowed to stand from two to three hours, according to the state of the weather, two hours in very warm, three in more moderate weather, when it is again turned; and it is regularly turned every two or three hours through the day, till dark; when it is left in the press for the night. The following morning it is taken from the press and put into brine, where it remains twenty four hours, being turned at sundown. At the expiration of the twenty-four hours, that is, on the second morning from the milk, it is taken from the brine and swathed with a linen bandage, which is continued on from seven to nine days as requisite, turning the cheese twice in twenty four hours through the heat of the weather, rubbing them daily with pork or bacon fat in which red peppers have been simmered, and afterwards settled and strained off.

MANUFACTUNE OF CIDER.

The Committee on Cider, say:

The cider exhibited by Mr. Kimball was of a high order of excellence. It was clear, sprightly, of good color and of excellent flavor. Mr. Kimball furnished the committee with a particular statement of the manner of making and preserving the cider. By this statement it appears the cider was made about the 20th Nov. 1832, with eight or nine other barrels, all of which were much alike, and that it is the pure juice of the apple, without any other mixture or ingredient whatever. The fruit was well assorted and consisted principally of the green sweeting, the baldwin and the pippin apples,—and was ground the night before pressing. Particular care was taken in straining the cider, that the straw should be clean and closely packed. The cider remained out of the cellar three or four days after it was made, the weather not being very cold. It was put into new strong casks and but little air admitted during the winter. It was drawn off the first of April and put into the same casks after they had been cleansed with water, and a brimstone match. All the cider was sold with the exception of two barrels in June and July. The barrel presented for premium was wrapped in woolen blankets by the middle of June. About the middle of August Mr. Kimball sold the barrel of cider not wrapped in blankets, and at this time there was no perceptible difference between the two barrels, except that the one wrapped in blankets was colder than the other. The cellar of Mr. Kimball is of a dry sandy nature, and by the first of July generally gets warm, but he is not sure that cider changes any sooner in such a cellar. Mr Kimball remarks, that although there may be a difference in cellars in regard to keeping cider, yet his own experience has taught him that the grand essentials, in making good cider, are good fruit well assorted and in a proper state of ripeness, with clean sweet casks and proper attention to the admission of air.

The above statement of Mr. Kimball probably contains the great secret of making and preparing good cider. In the first place the fruit must be good and well assorted. In the next place great cleanliness should be used in making the cider, and every thing which comes in contact with the cider should be sweet and clean. In the third place it should be well strained from the pomace and put into clean, strong casks. In the fourth place particular care should be taken, that as little air as possible, consistent with the preservation of the cask, should be admitted. It may be doubted by some, whether the racking off the cider in the spring was of any benefit, as they hold to the opinion that cider keeps as well to remain undisturbed upon the lees. Of this, how

acts as a *poison* to certain vegetables. "Magnesia," adds that eminent chemist, "has a much weaker attraction for carbonic acid than lime, and will remain in the state of caustic or calcined magnesia for many months, though exposed to the air. And *as long as any caustic lime remains, the magnesia cannot be combined with carbonic acid, for lime instantly attracts carbonic acid from magnesia.*"

From these facts it must be evident that the *powder* of magnesian limestone when prepared mechanically, and not by calcination, will be *mild* and entirely free from all the disadvantages of *hot* lime.

All the soft limestones of this part of the state of New York which I have examined, contain much argillaceous earth; and would probably come under the denomination of what is known in England by the name of *stone marl*. Rocks of this kind are readily disintegrated when exposed to the frost; and their value as a dressing to land will depend partly on the quantity of lime which they contain, and partly on the nature of the soil to be manured,—the most sandy being the most benefitted. A FARMER.

*For the Genesee Farmer.*

## Inquiry.

DEAR SIR—Can any of your correspondents inform the farmers of this state, through the columns of the Farmer, of some means of destroying the *cut worm*, or *brown grub*, which has been very destructive to the corn crop in this county, particularly this season—in some instances whole fields have been cut off.

Your obed't serv't, A FARMER.

*Luzerne co., (Pa.,) July*, 1834.

## Summer Flowers.

(*In a letter of the 1st instant.*)

The Everlasting Pea (*Lathyrus latifolius*) is a rampant plant which like most other peas requires a support; and the best that I have seen is a light square frame, diverging upwards, so as to allow the stems room to spread. The blossoms are red and very showy. There is said to be a white kind, which I have growing, but which has not yet flowered.

The petals of the Superb Pink (*Dianthus superbus*) are very finely divided, and are both singular and beautiful. It has been much admired.

*Hemerocallis cærulea* is a native of Japan, but bears our winters without damage. In its foliage it differs entirely from all the other species of the genus that I have seen, except *H. japonica*; and Salisbury placed it in a separate genus. Its flowers are striped on the inside with pale purple and white, and grow in spikes on a scape three feet high.

*Monarda didyma* is a splendid flower; and though found native in some parts of this district, it well deserves a place in the garden.

## Capt. Matthews' Potatoes.

Captain Wm. P. Matthews, of Chestertown, E. S., presented us a few days ago with a specimen of his spring crop of potatoes, which appears to be of a new variety. They are of a pure white, of good size, and come very early—they likewise appear to be very prolific; they were planted in March—the 25th of May they were fit for use, and some were dug the 15th of June; those remaining in the ground were found to be sprouting—they were taken out and a second crop was planted on the 25th of June, and also on the 10th of July.

They are very beautiful potatoes to look at, and there is no doubt that they will be found a valuable variety. The Captain is also engaged in raising some from the seed of the potatoe ball, and we may expect some new varieties will be produced. If experiments of this kind were oftener put in practice, much improvement might be expected to result from them.

It will be seen under the Horticultural Report, that he has been no less successful in raising Beets—some of the largest of the kind we ever saw, were presented by him to that society for exhibition.—*Bal. Far. and Gar.*

## M'Adam's System of Road Making.

*Copy of a letter from C. H. Hammond, Esq. to the Hon. Geo. Tibbets, Esq. dated*

BENNINGTON (VT.) IRON WORKS, Feb. 29, 1832.

DEAR SIR—At your suggestion, I sent to England for such information as could be procured, on the subject of Mr. M'Adam's system of road making and road repairing. From the materials received, I propose to give you a few extracts, accompanied with such observations as may be necessary to explain Mr. M'Adam's theory, in the hope that you and some others may do something towards correcting the errors which we are committing in making our new roads. Whether opinions, which seem somewhat rooted, can be eradicated just yet, is in my mind doubtful, but most certainly, when Mr. M'Adam's theory is once understood, no apology can be offered, for making him godfather to a system, which, if not precisely, is in principle, the one he has been for more than thirty years endeavoring to demolish. "It is of the utmost importance," says Mr. M'Adam, "that the theory be perfectly understood, as from a want of comprehending the original nature of the system, have arisen the many fruitless attempts at imitation, which have cost such vast sums to the public. Those who continue to use any part of the old method of road making, are not, perhaps, aware of the principles upon which they are acting." That method thus utterly condemned, which is "common in England and almost universal in Scotland," is thus described by Mr. M. M'Adam. The first step is "to dig a trench, in this trench to deposit a quantity of stones, after this, a second quantity broken smaller; these beds of stone are called the bottoming of the road, and are of various thickness, according to the caprice of the maker, and generally in proportion to the sum of money placed at his disposal. On some roads in Scotland the thickness exceeded three feet. That which is properly called the road, is then placed on the bottoming, by putting large quantities of broken stone, or gravel, generally a foot or eighteen inches thick, at once. Any improvements," he says, "that have been made on this plan merely relate to the smoothness of the surface, by more carefully laying the stones, and consequently, at greater expense, but the original principle remains the same on every road, except when the new system has been fully adopted. From the conviction of the very insufficient and expensive nature of this method, I was led, says Mr. M'A., to consider the possibility of constructing lines of communication capable of carrying the heaviest weights over any *kind of soil, at all seasons*, upon principles purely scientific." Before attempting to describe Mr. M'A.'s plan, or to explain his theory, I have thought it well to give, in his own words, a description of the system which he condemns, which is in principle the one adopted in the state of New York, and from which, to use his own felicitious comparison, his system "differs, even in theory, as widely as the principle by which an arch is thrown over a river, differs from the heap of stones that constitutes the ford." I know nothing practically of Mr. M'Adam's system, but what I saw casually, in England, ten years ago, when I was much struck with the perfection of his roads. In examining the subject now, I have been delighted with his cheap and simple mode of operating, and very favorably impressed with the soundness of the principles upon which his theory is founded. The strongest possible evidence of its practical utility, is the success of his system in England and Scotland, perhaps the most trying climates in the world for roads, in consequence of the frequent rains and fogs, and the severe frosts and snows, succeeded by sudden thaws. There is a received impression that our climate is less favorable to good roads, on account of the intensity of the cold and the depth to which the frost penetrates into the ground. But if this be correct, it only tends to weaken the argument in favor of a system which has been found both in England and Scotland insufficient and pernicious, for the roads there constructed upon the principle which we are now adopting here, "break up in a very alarming manner, and to an extent that creates great loss and inconvenience."

In January, 1820, all the roads about London, constructed on the old system of "bottoming," broke up so that the mails were obliged to reach the metropolis by circuitous routes, while not one of the new roads gave way, nor were they affected by the rigor of that winter; yet none of these new roads were over six inches thick. "It is worthy of observation, that the bad roads cost more money per mile, for their annual repair, than the original making of the new roads." In attempting to guard against deep freezing, or to go "below the frost," as it is called, the primary cause of injury from the frost does not appear to me to have been properly considered. Whether frost penetrate six inches, or four and twenty, the effect of a thaw must be to break up the surface and let in the water, and water admitted into a mass of unconsolidated stones, deposited in a receptacle where it is likely to be accumulated, must occasion greater mischief, if arrested by frost, than it would in the natural ground. In either case, a breaking up must follow, and in the case of the stones, the damage to the road would be irremediable, except by an entire reconstruction. But frost is only an incidental cause of mischief, altogether contingent upon the presence of *water*; neither duration nor intensity of cold, nor sudden thaws can produce any sensible effect upon a road without it. Clay roads kept perfectly dry,—I do not refer to atmospheric moisture, nor to the natural moisture of the ground, but to *under* water, and to rain,—would be as good in thaws, and wet weather, as every one knows them to be, in the dry season of summer. It is the expansion

of the water by congelation that loosens and displaces the materials of a road, or the native soil. Such are my views of the philosophy of Mr. M'Adam's theory; at any rate, to guard against *water* is the aim and end of his method. "There cannot be a doubt," says Mr. M'A., "that all roads may be made smooth and solid in an equal degree, and to continue so at all seasons of the year. Their durability will of course depend upon the strength of the materials of which they may be composed, but they will all be good while they last, and the only question that can arise respecting the kind of materials, is one of time and expense, but never of the immediate condition of the roads. The roads can never be rendered thus perfectly secure until the following principles be fully understood, admitted, and acted upon, namely: That it is the *native soil* which really supports the weight of the traffic; that while it is preserved in a *dry state* it will carry any weight, without sinking, and that it does in fact carry the road and the carriage also; that the native soil must previously be *made perfectly dry*, and a covering impenetrable to rain, must then be made to *preserve* it in a dry state; that the thickness of a road should only be regulated by the quantity of material necessary to form such impervious covering, and never by any reference to its own power to carry weight." These are Mr. M'Adam's principles, in his own language. So entirely does he condemn the old practice of stone foundation, that he considers it not only "a useless expense, but a mischievous preparation." He holds that the native soil is the best foundation, whether clay, sand, morass, or bog, "if it was not such a bog as would not allow a man to walk over it." In his examination before a select committee of the House of Commons, he says, "I should prefer a bog." "If a road (that is the covering) be made smooth and solid, it will be one mass, and the effect of the substrata can never be felt in effect, by carriages going over the road, because a road well made unites itself in a body like a piece of timber." The practical truth of the above singular and startling assertion was sustained by other positive testimony, respecting a "road over a very soft peat bog," by Wedmore & Glastonbury, in the county of Somerset.

"The general strength of the roads," (over the bog) is from seven to nine inches, and five tons of stones was considered for the repairs of this part of the road equal to seven on the other part, over the hills." (Evidence before the committee of the House of Commons, 11th March, 1819.) The preparation of the native soil and the manner of making the road, are easily described; but require judgment and nice attention on the part of the superintendent. The native soil must be drained either by carrying the water to lower grounds, or when that cannot be done, by raising the ground, upon which the road is proposed to be laid, some inches above the level of the water. Having secured the soil from *under* water, the next step is to protect it from rain water. This is then roughly accomplished by a covering of stones which, if properly prepared and placed, becomes smooth, solid, compact, and almost impenetrable The prescribed size of the stone is six ounces in weight, or one inch longitudinally, and of angular shapes; round stones never will consolidate. Six ounces is the maximum, larger than this the road will be rough, or become either rutted, or what is very significantly called in England, "gridironed," like the Troy and Albany road, for example. To the excellence of the Troy and Albany road, however, I bear most willing testimony; at the same time I cannot help thinking, that if the method of Mr. M'A. had been adopted, it would have been in all respects better, though this opinion is hazarded with much diffidence in opposition to gentlemen whose judgment I am accustomed to treat with great deference. Mr. M'Adam thinks weighing the best mode of measurement as applied to all qualities of stones. His surveyors carry small scales with a six ounce weight, and if the largest stones selected from a heap do not exceed this weight, the rest will average less. He prefers placing the stones at three different times, the entire thickness not to exceed ten inches. Mr. M'Adam says, in answer to a question before a select committee of the House of Commons, "I should think ten inches of solid material equal to carrying any thing." Curb stones are not necessary, and the only operation after laying on the stones, is to keep the wheel track filled up until the mass is consolidated by means of the track. The inclination towards the sides is one inch in three feet. This is found to be enough to carry off the water. On convex roads, carriages will seek the center in order to keep upright, by which the road is unequally worn, and more severely tried than if the wheels roll on a flat surface with the tires in perfect contact.

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I have by me several publications of Mr. M'Adam, together with the examinations of witnesses by select committees of the House of Commons, and the reports of those committees, in 1819 and 1823, contained in one volume, all tending to explain and establish the M'Adam system. One of these reports says, "The general testimony borne to his complete success wherever he has been employed, and the proof that his improvements have been attended with an actual reduction of expense, induce your committee to attach a high degree of importance to that which he has already accomplished. The imitation of his plans is rendered easy by their simplicity, and by the candor with which he has explained them, though ability in the surveyor to judge of their application must be understood as an essential requisite." (Rep. 25th June, 1819, and to the same effect, June, 1823.) Indeed, his success has been the result of a sound theory, confirmed by the test of time and experience. I wish we could manage to have much of the matter in my possession re-published. It contains a vast deal of useful and practical information, of which I have given you a very meagre abstract—relating not only to road making and repairing, but also to the management of the superintendence and of the finances of the public roads, in which latter particulars as well as in the first, our system is wofully defective.

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Very respectfully,
Your obed't serv't,
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## A Ram, imported by J. Barney.

We have had the pleasure of receiving another letter from our friend, Mr. J. Barney, of Philadelphia, who has just been increasing his flock by the purchase of one of the finest young Rams we have heard of lately—He says: "I have just been to New York to look at two imported sheep, year old Rams—I have purchased one of them for $150, cash; when all expenses are included, he will cost $200 by the time he arrives at the Girard Farm. He is a great sheep; he sheared 12¼ pounds of wool washed—he is of the Bakewell, crossed with the Yorkshire breed. The other was sold for $160, with two of my ewes at $50 each, and taken to Sciota Valley, Ohio."

Mr. B. observes that wool 12 to 13 inches long and a fleece of 12¼ pounds on a year old sheep is not often to be seen. We perfectly agree with him; such an animal is not often to be seen, and we are very much gratified that this noble animal has fallen into such good hands; we may be well assured that the most will be made of him.—*Bal. Far. and Gar.*

*To preserve Vines from Bugs, &c.*—Glauber's Salts, (Sulphate of Soda) an ounce dissolved in about one quart of water, and sprinkled on the plants or vines, is recommended as a preventive against insects.

*Cheap Antidote.*—There is not a house in the country, (says an English Magazine) that does not obtain a remedy for poisoning if instantly administered. It is nothing more than two teaspoonfuls of made mustard mixed in warm water. It acts as an instantaneous emetic. Making this simple remedy known, may be the means of saving many a fellow creature from an untimely death.

acts as a *poison* to certain vegetables. "Magnesia," adds that eminent chemist, "has a much weaker attraction for carbonic acid than lime, and will remain in the state of caustic or calcined magnesia for many months, though exposed to the air. And *as long as any caustic lime remains, the magnesia cannot be combined with carbonic acid, for lime instantly attracts carbonic acid from magnesia.*"

From these facts it must be evident that the *powder* of magnesian limestone when prepared mechanically, and not by calcination, will be *mild* and entirely free from all the disadvantages of *hot* lime.

All the soft limestones of this part of the state of New York which I have examined, contain much argillaceous earth; and would probably come under the denomination of what is known in England by the name of *stone marl*. Rocks of this kind are readily disintegrated when exposed to the frost; and their value as a dressing to land will depend partly on the quantity of lime which they contain, and partly on the nature of the soil to be manured,—the most sandy being the most benefitted. A FARMER.

*For the Genesee Farmer.*

## Inquiry.

DEAR SIR—Can any of your correspondents inform the farmers of this state, through the columns of the Farmer, of some means of destroying the *cut worm*, or *brown grub*, which has been very destructive to the corn crop in this county, particularly this season—in some instances whole fields have been cut off.

Your obed't serv't, A FARMER.

*Luzerne co., (Pa.,) July.* 1834.

## Summer Flowers.

*(In a letter of the 1st instant.)*

The Everlasting Pea (*Lathyrus latifolius*) is a rampant plant which like most other peas requires a support; and the best that I have seen is a light square frame, diverging upwards, so as to allow the stems room to spread. The blossoms are red and very showy. There is said to be a white kind, which I have growing, but which has not yet flowered.

The petals of the Superb Pink (*Dianthus superbus*) are very finely divided, and are both singular and beautiful. It has been much admired.

*Hemerocallis cærulea* is a native of Japan, but bears our winters without damage. In its foliage it differs entirely from all the other species of the genus that I have seen, except *H. japonica*; and Salisbury placed it in a separate genus. Its flowers are striped on the inside with pale purple and white, and grow in spikes on a scape three feet high.

*Monarda didyma* is a splendid flower; and though found native in some parts of this district, it well deserves a place in the garden.

## Capt. Matthews' Potatoes.

Captain Wm. P. Matthews, of Chestertown, E. S., presented us a few days ago with a specimen of his spring crop of potatoes, which appears to be of a new variety. They are of a pure white, of good size, and come very early—they likewise appear to be very prolific; they were planted in March—the 25th of May they were fit for use, and some were dug the 15th of June; those remaining in the ground were found to be sprouting—they were taken out and a second crop was planted on the 25th of June, and also on the 10th of July.

They are very beautiful potatoes to look at, and there is no doubt that they will be found a valuable variety. The Captain is also engaged in raising some from the seed of the potatoe ball, and we may expect some new varieties will be produced. If experiments of this kind were oftener put in practice, much improvement might be expected to result from them.

It will be seen under the Horticultural Report, that he has been no less successful in raising Beets—some of the largest of the kind we ever saw, were presented by him to that society for exhibition.—*Bal. Far. and Gar.*

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*From the Knickerbocker.*

## Worship by the Rose Tree.

BY MISS H. F. GOULD.

Author of beauty, Spirit of Power,
Thou who did'st will that the Rose should be,
Here is the place, and this is the hour
To seek thy presence, and bow to thee.
Bright is the world with the sun's first rays;
Cool is the dew on the soft, green sod,
The Rose-tree blooms, while the birds sing praise,
And earth gives glory to Nature's God.

Under this beautiful work of thine,
The flowery boughs that are bending o'er
The glistening turf, to thy will divine,
I kneel, and its Maker and mine adore!
Thou art around us. Thy robe of light
Touches the gracefully-waving tree,
Turning to jewels the tears of night,
And making the buds unfold to thee.

Thy name is marked in delicate lines,
On flower and leaf that deck the stem;
Thy care is seen, and thy wisdom shines
In even the thorn that is guarding them.
Now, while the Rose that has burst her cup,
Opens her heart and freely throws
To me her odors, I offer up
Thanks to the Being who made the Rose.

*Newburyport, Mass., July,* 1834.

*From Schoolcraft's Narrative.*

## Itasca Lake---the Source of the MISSISSIPPI.

Itasca Lake, the *Lac la Biche* of the French, is in every respect a beautiful sheet of water, seven or eight miles in extent, lying among hills of diluvial formation, surmounted with pines, which fringe the distant horizon, and form an agreeable contrast with the greener foliage of its immediate shores. Its greatest length, is from south-east to north-west, with a southern prolongation, or bay, which receives a brook. The waters are transparent and bright, and reflect a foliage produced by the elm, lynn, maple and cherry, together with other species more abundant in northern latitudes. The lake itself is of irregular form, which will be best illustrated by the accompanying sketch: It has a singular island, upon which we landed, after an hour's paddling from the spot of our arrival and embarkation. We found here, the forest trees above named growing promiscuously with the betula and spruce. The bones of fish and of tortoise, found at the locality of former Indian camp fires, indicate the existence of these species in the lake. And, here, as well as throughout the lakes of the region, found the duck, teal and loon, in possession of their favorite seclusions. Innumerable shells (a species of small helix) were driven up to the head of the island. Other parts of the lake yield small species of the un o, which were found strewing the bed of the outlet. And it may here be remarked that this shell exists, in the largest and heaviest species heretofore known, in the lower parts of this stream—the Mississippi having its origin here.

The outlet of Itasca Lake, is perhaps ten or twelve feet broad, with an apparent depth of twelve to eighteen inches. The discharge of water appears to be copious, compared to its inlet. Springs may, however, produce accessions which are not visible, and this is probable both from the geological character of the country, and the transparency and coolness of the water.

The hight of this lake, above the sea, is an object of geographical interest, which, in the absence of actual survey, it may subserve the purposes of useful inquiry to estimate. From notes taken on the ascent, it cannot be short of one hundred and sixty feet above Cass Lake. Adding the estimate of 1330 feet, submitted in 1820, as the elevation of that lake, the Mississippi may be considered to originate at an altitude of 1490, say 1500 feet above the Atlantic. Its length, assuming former data as the basis, and computing it, through the Itascan, or west fork, may be placed at 3160 miles: one hundred and eighty-two of which comprise an estimate of its length above Cass Lake. Its general course, in *ascending*, above the latter point, is north of west, as far as Lac Travers. Then south to its primary forks which is continued, following up the east fork to Kubbakunna Lake, and for some distance further. It then varies a short distance, north and northwest, then southwest and south, and finally southwest, to its main source in Ossowa Lake. The portage thence to Itasca Lake, is west southwest. Both these lakes appear to rise in spring, on the hight of land. They are separated by about six miles of country. Their latitude we had no means of accurately determining. From daily notes of the courses and distances, kept by Lieut. J. Allen, as indicated by a compass and watch, their position is, however, shown to be *southwest*, and not, as heretofore supposed, *northwest*, of Cass Lake. They are, in fact, a little south of west from Leech Lake, which is placed, on our best maps, in forty-seven degrees sixteen minutes. The highest northing attained by the Mississippi is one of the great deluvial plateau, containing the contiguous waters of Lake La Salle, Marquette and Travers, which cannot vary more than a few minutes, from forty-eight degrees. These facts will explain the error of the elder geographical writers, who supposed that the parallel of forty-nine degrees would intersect the Mississippi. Its origin in the remote and unfrequented area of country between Leech Lake and Red River, probably an entire degree of latitude south of Turtle Lake, which still figures on some of our maps as its *source*, throws both the forks of this stream out of the usual route of the fur trade, and furnishes perhaps the best reason why its actual sources have remained so long envoloped in obscurity.

The Mississippi river traverses more degrees of latitude than any other river in America, and the remark might, perhaps, be extended to the habitable globe. The extremes of its changes in climate and vegetable productions, are, consequently, very great. It occupies more than three thousand miles of the distance between the arctic and the equator. Long as it is, however, it has a tributary longer than itself, (the Missouri.) Like the Niger, its mouth was discovered by expeditions down its current, but unlike that stream which has so long held the geographical world in suspense, its sources have been also sought from its central parts. Its entire course is at length known. And we may now appeal with full certainty to the Balize and Itasca Lake, as its most extreme points. At the latter it is a placid basin of transparent spring water. At the former, it is as turbid as earth in suspension can make it, and carries a forest of floating trees on its bosom. Below the junction of its primary forks, it expands at very unequal distances, into eight sheets of clear water, each of which has features worthy of admiration. Four of these, Lac Travers, Cass Lake, Winnepec, and Lake Pepin, are lakes of handsome magnitude, and striking scenery. The number of its tributaries of the first, and the second, and the third class, is so large that it would furnish a labor of some research, to determine it. The Missouri, the Ohio, and the Arkansas are of the noblest class. Whoever has stood at the junction of these streams, as the writer has done, must have been impressed with an idea of magnitude and power, which words are incapable of conveying. The broadest parts of its channel lie in the central portions of its valley. Its depth is great in all its lower parts, and increases as it flows on to the Gulf, and its general descent and velocity are such as to appear very striking characteristics.* Noble views arrest the eye of the observer, in every part of its diversified course. Originating in a heavy and extensive bed of diluvial soil, superimposed upon primitive strata, it soon wears its channel down to the latter, and after running over them for several hundred miles, plunges at length, at the Falls of St. Anthony, over the carboniferous limestone formation, which is so prevalent and so valuable for its mineral deposites below that point. This is finally succeeded by diluvial and alluvial banks, the latter of which are semi-annually enriched by fresh deposites and exhibit a delta as broad and as exuberant as the Nile. Like the latter, it has its cataracts in the Falls of St. Anthony and Pukaigama, and in numerous lesser leaps and cascades, where its current is tossed into foam and threatens destruction to the navigator. Such are its physical traits, and these enough in character, magnitude, and variety to lead our contemplations irresistibly, "thro' nature up to nature's God."

* From the data, above given, the descent of the Mississippi will average a fraction over five inches per mile, a result not essentially different from that furnished by the data, which I submitted in my Narrative Journal, 1820, but which was differently stated from haste and inadvertence. For a prompt notice of the error, I feel indebted to Hamilton Fulton, Esq., who, soon after the appearance of the work, wrote to my publishers on the subject.

## Avon Springs.

The last number of the New York Mirror contains an interesting article from the pen of *Dr. Francis*, giving an account of the medicinal qualities of the Sulphur Springs of Avon, together with the comparative usefulness of several other of the most celebrated mineral fountains in the United States. The waters of the Avon Springs have been analyzed, and the properties of their constituent parts found to be as follows: of the upper spring, according to Dr. Hadley, one gallon of the water contains 5.6 cubic inches of carbonic acid; 12 cubic inches of sulphurated hydrogen gas; 8 grains of carbonate of lime; 84 grains sulphate of lime; 10 grains sulphate of magnesia; 18.4 grains muriate of soda; 16 grains sulphate of soda; and other medicinal properties not accurately ascertained.

The lower spring, according to *Dr. Salisbury*, contains the following constituents, "so arranged as to form compounds existing in the water, and calculated for ten thousand parts by weight:"

| | |
|---|---|
| Carbonate of lime | 5.02 |
| United carbonic acid | 1.70 |
| | 6,72 |
| Chloride of calcium | 1.44 |
| Sulphate of lime | 9.83 |
| Sulphate of magnesia | 8.49 |
| Sulphate of soda | 2.35 |
| | 28.83 |
| By volume of 10.000, are | |
| Hydro-sulphuric acid | 4.34 |
| Nitrogen | 2.35 |
| Oxygen | .25 |
| | 6.94 |

These springs, have of late years become a favorite resort for invalids of all descriptions; and the efficacy of their use has been sufficiently tested, to insure them a permanent reputation. They are thought to be equal to the celebrated waters of Saratoga and Ballston Spa, in the cure of the thousand diseases which "flesh is heir to;" and being situated in a beautiful section of country, surrounded by romantic scenery, it is one of the most agreeable retreats in Western New York. —*Buffalo Bulletin.*

The *Ami du Pepule*, a paper published in Montreal, relates the following curious circumstance. It mentions having seen, a few days ago, in the Court House, a curiosity in the person of Therese Saumur, wife of Joseph Plouf, from St. Martin. "This Woman has not taken any nourishment for two years and a half, but supports her existence by a few spoonfulls of milk tea or oat water, which she can only swallow drop by drop. She even sometimes passes three or four days without this trifling nourishment. She does not feel any habitual pain, but when she drinks, her stomach swells, and she is often subject to vomiting. Her appearance is healthy, and she walks without difficulty. Medical men have in vain attempted the effects of treatment upon her. She generally carries a piece of sugar, which she occasionly applies to her mouth."

It is of no consequence of what parents any man is born, so that he be of merit.